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(54) Optical cross-connect system

(57) An optical cross-connect system is provided with M fixed wavelength light sources and external modulators corresponding to respective optical paths, serving as light sources for wavelength conversion devices corresponded to M x N optical paths. By means of electrical signals for the converted optical signals canied on the M x N optical paths, CW lights input to the external modulators from the respective light sources are modulated, wavelength converted and then output. Accompanying this wavelength conversion, wavelength multiplexed light sources which can select lights from a plurality of fixed wavelength light sources and output to predetermined output ports, are used for the light sources of the plurality of wavelength conversion devices of the cross-connect system. In this way, the light sources of a plurality of wavelength conversion sections are commonalized using a fixed wavelength light source. As a result wavelength multiplexed light sources which can respectively output lights of optional wavelengths to a plurality of output ports using a plurality of fixed wavelength light sources are realized. Moreover, by using such wavelength division multiplexed communication light sources, then a highly realizable and economical optical cross-connect system is possible.

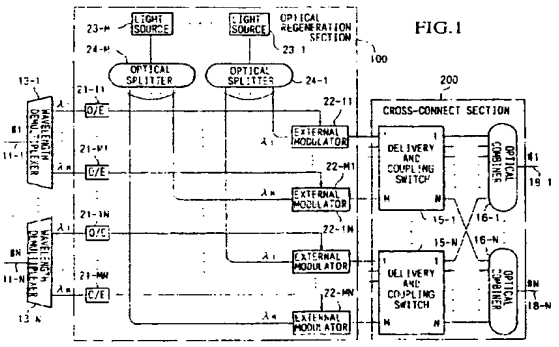

FIG.1

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EUROPEAN SEARCH REPORT

Application Number
EP 96 40 1795

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	WATANABE A ET AL: "OPTICAL PATH CROSS-CONNECT NODE ARCHITECTURE OFFERING HIGH MODULARITY FOR VIRTUAL WAVELENGTH PATHS" IEICE TRANSACTIONS ON COMMUNICATIONS, vol. E78-B, no. 5, 1 May 1995, pages 686-693, XP000513468 * paragraph 3.1 - paragraph 3.2 *	1,6,12, 13	H04Q11/00
A	KOJI SASAYAMA ET AL: "DEMONSTRATION OF A PHOTONIC FREQUENCY-ROUTING-TYPE TIME-DIVISION INTERCONNECTION NETWORK-FRONTIERNET - AND PERFORMANCE ANALYSIS OF FDM OUTPUT BUFFERS" ISS'95, vol. 2, 23 April 1995, pages 452-456, XP000495699 * figure 2 *	1,6,12, 13	
A	KUO-CHUN LEE ET AL: "A WAVELENGHT-CONVERTIBLE OPTICAL NETWORK" JOURNAL OF LIGHTWAVE TECHNOLOGY, vol. 11, no. 5/06, 1 May 1993, pages 962-970, XP000396725 * figures 3,5 *	1,6,12, 13	TECHNICAL FIELDS SEARCHED (Int.Cl.6) H04Q

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	12 March 1998	Dhondt, E

CATEGORY OF CITED DOCUMENTS

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